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15 July 2021

## Walleys Quarry Landfill Briefing for Staffordshire Health and Care Overview and Scrutiny Meeting - 26 July 2021

### Our Role

The Environment Agency's primary role at Walleys Quarry is to regulate the two environmental permits held by the operator of the landfill, Walleys Quarry Ltd. The permits cover on-site activities, with the aim of minimising the impact on the local environment in terms of air quality, noise, odour, dust, leachate, and impacts to groundwater. We enforce that permit through monitoring and undertaking site visits (both announced and unannounced) and where needed we take enforcement action to address compliance issues.

At sites that we regulate, we have a statutory requirement to protect the environment and safeguard people's health. Our main objective at Walleys Quarry is to get the operator to return to a state of compliance with their permit, this includes them taking the necessary actions to reduce the odour levels on the site. Though landfill sites will never be completely free of odour, the levels experienced at Walleys Quarry Landfill are unacceptable and we are using all the regulatory powers and tools available to us to bring the site back into compliance.

### Current situation as of 15 July 2021

We are continuing to see a high number of reports daily of odour complaints, along with reports of impacts of health. For the week 05 July to 11 July 2021 Hydrogen sulphide levels for these dates were below the World Health Organisation's (WHO) 24-hour average health guideline level to protect against short-term health effects but were above the WHO's 30-minute average odour annoyance guideline level between 3% and 18% of that week. Overall the concentrations are slowly reducing, but levels have now been persistently above the annoyance guidelines since early March.

We understand that local residents are concerned about the potential health-related issues that come from long term exposure to hydrogen sulphide or other landfill gases. It is important to stress that we are not health experts, and it would not be appropriate for us to advice or comment on health related matters.

We are sign-posting residents to resources and sources of information like a daily health survey held by Staffordshire County Council.

We recognise that the odour is incredibly distressing and is having a significant impact on residents. Health partners have expressed concerns about the mental health impacts of the situation as well as the risk to physical health as a result.

### Our Mitigation Measures

We have held meetings with the operator to discuss gas management on the site, and have agreed an action plan to improve gas containment and collection to further reduce odour emissions from the site. This will see a further 22 gas collection wells drilled across the site over the coming months bringing the total to 77 gas wells.

We have installed four air quality Mobile Monitoring Facility (MMF) units which initially were to remain in place for three months to continuously assess air quality. These MMF units that were due to remain until the end of August 2021 are now being looked at to remain in place at least the end of the year.

These units are monitoring relevant parameters, including methane (CH<sub>4</sub>) particulates and hydrogen sulphide (H<sub>2</sub>S). It also has a weather station which records wind speed, direction, temperature, and pressure. Data has been collated into monthly reports which we have provided PHE so that they can offer expert opinion on any human health impacts.

In the March to April Health Risk Assessment Report of the Air Quality Monitoring Results, the monitoring results showed that the maximum concentrations of methane were significantly less than the levels deemed harmful by PHE. The monitoring results for particulate matter and nitrogen dioxide were below the UK air quality objectives. For the majority of the monitoring period, hydrogen sulphide levels were below the WHO 24-hour health based-guideline value. However, hydrogen sulphide levels still remain above WHO's 30-minute average odour annoyance guideline level.

The Environment Agency has ran regular virtual engagement events for the local community and stakeholders (fortnightly between the end of May and through June). The latest engagement event was a multi-agency event on 06 July 2021.

Our communication and engagement with stakeholders also includes a weekly public briefing which is uploaded to our Citizen Space page.

Since February 2021 an additional 500 cubic meters per hour of landfill gas is now being collected and managed by the gas plant. This has been made possible by having additional capping, the installation of additional gas extraction wells, and better sealing of the gas wells. Further capping on the flanks of the landfill is expected to commence at the end of July. This means nearly 70% of the site will be permanently or temporarily capped once the further capping has been completed.

Other measures being taken to minimise odour at this landfill include;

- capturing landfill gas and combusting it using a landfill gas engine or flare
- keeping the tipping area as small as possible
- covering waste as soon as possible
- keeping leachate levels low and avoiding over-tipping older areas of waste

We will continue to review our position and the response from the operator in accordance with our published enforcement guidance, relevant legislation, and the Regulators Code.

**Marc Liddeth**

**Walleys Quarry Landfill - Project Executive**